Pythagorean Theorem Worksheet

**Answer all the following questions:**

c is the hypotenuse of the right triangle ABC with sides a, b, c

1. a = 3 ; b = 4; c = \_\_\_\_\_\_\_\_\_\_\_\_\_

2. a = 6 ; b = 8 ; c = \_\_\_\_\_\_\_\_\_\_\_\_\_

3. a = 12 ; b = 5; c = \_\_\_\_\_\_\_\_\_\_\_\_\_

4. a = 9 ; b = 12; c = \_\_\_\_\_\_\_\_\_\_\_\_\_

5. a = 15 ; b = 20; c = \_\_\_\_\_\_\_\_\_\_\_\_\_

6. a = 8 ; b =\_\_\_\_\_\_\_\_\_\_\_\_ ; c = 10

7. a = 15 ; b =\_\_\_\_\_\_\_\_\_\_\_\_ ; c = 17

8. a = \_\_\_\_\_\_\_\_\_\_\_\_ ; b = 40 ; c =50

9. a = \_\_\_\_\_\_\_\_\_\_\_\_ ; b = 2 ; c = 4

10. a = 1.2 ; b =­­­­­­­­­ \_\_\_\_\_\_\_\_\_\_\_\_\_ ; c = 3.5

For the following, a is the short side of a 30-60-90 triangle, b is the long side, and c is the hypotenuse.

11. a=12, b=\_\_\_\_\_\_, c=\_\_\_\_\_\_

12. a=\_\_\_\_\_\_,b=10√3, c=\_\_\_\_\_\_

13. a=\_\_\_\_\_\_, b=\_\_\_\_\_\_c= 40

14. a=\_\_\_\_\_\_, b=8√3 , c= \_\_\_\_\_\_

15.a= 18, b=\_\_\_\_\_\_, c=\_\_\_\_\_\_

For the following, a is the side of a 45-45-90 triangle, c is the hypotenuse.

16. a= 10, c=\_\_\_\_\_\_

17. a=\_\_\_\_\_\_, c=12√2

18. a= 12, c=\_\_\_\_\_\_

19.a=\_\_\_\_\_\_, c=6√2

20.a=8, c=\_\_\_\_\_\_